

# Subtraction -

## Stage 1

Children understand the concept of subtraction as taking a number away from another. They understand and use – and = symbols accurately. Calculations should be written on either side of the equals sign so = is not just interpreted as the answer.

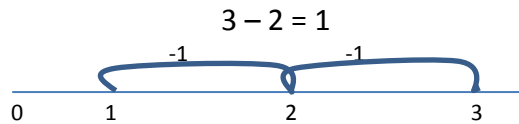
$$6 - 2 = 4 \quad 4 = 6 - 2$$

Children use Numicon and visual representations to subtract numbers.



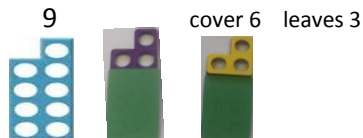
$$3 - 2 = 1$$

Counting backwards in ones on a number line.



Use Numicon to subtract

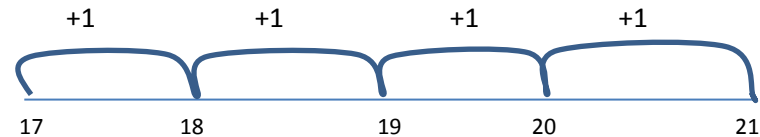
$$9 - 6$$



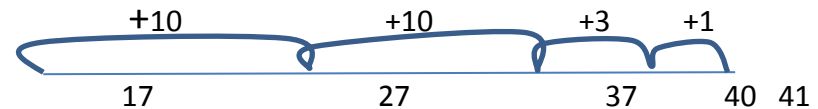
## Stage 2

Begin to 'find the difference' by counting on in ones using a number line.

$$21 - 17$$



Leading to  $41 - 17 = 24$



Years 1 and 2

## Stage 3

Subtracting 2 digit numbers from other 2 digit numbers using a column method. Use expanded method first with no exchanging at this stage. Model both methods alongside each other to show 'same and difference' of methods.

	Expanded method	Formal method
36 + 12 =	$30 + 6$	$\begin{array}{r} 36 \\ + 12 \\ \hline \end{array}$
Partition	$- 10 + 2$	$- \begin{array}{r} 12 \\ \hline \end{array}$
and	$20 + 4$	$\begin{array}{r} 24 \\ \hline \end{array}$
Recombine	$= 24$	

Recommended by the end of year 2

## Stage 4

Column subtraction of 2, 3 and 4 digit numbers using expanded methods first but show both methods together to discuss similarities and differences of both methods.

**Pupils must have a secure understanding of place value and partitioning**

$\begin{array}{r} 20 \ 16 \\ 30 + 6 \\ - 10 + 9 \\ \hline 10 + 7 \\ = 17 \end{array}$	$\begin{array}{r} 2 \ 1 \\ 36 \\ - 12 \\ \hline 17 \end{array}$	leading to	$\begin{array}{r} 80 \ 13 \\ 600 + 90 + 3 \\ - 200 + 70 + 5 \\ \hline 400 + 10 + 8 \\ = 418 \end{array}$	$\begin{array}{r} 8 \ 1 \\ 693 \\ - 275 \\ \hline 418 \end{array}$
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Recommended by the end of year 3

### Stage 5 - Formal written methods

Short written methods using 'exchange'.

$$\begin{array}{r} \phantom{0}8 \phantom{0}1 \\ 7893 \\ - 5385 \\ \hline 2508 \end{array}$$

Recommended by the end of year 4

In years 5 and 6 pupils continue practising formal written methods with increasing large numbers so they are fluent and precise.

### Stage 6 – Subtraction using decimals

$$\begin{array}{r} \phantom{0}5 \phantom{0}16 \phantom{0}1 \\ 36.76 \\ - 13.87 \\ \hline 22.89 \end{array}$$

Recommended by the end of year 5